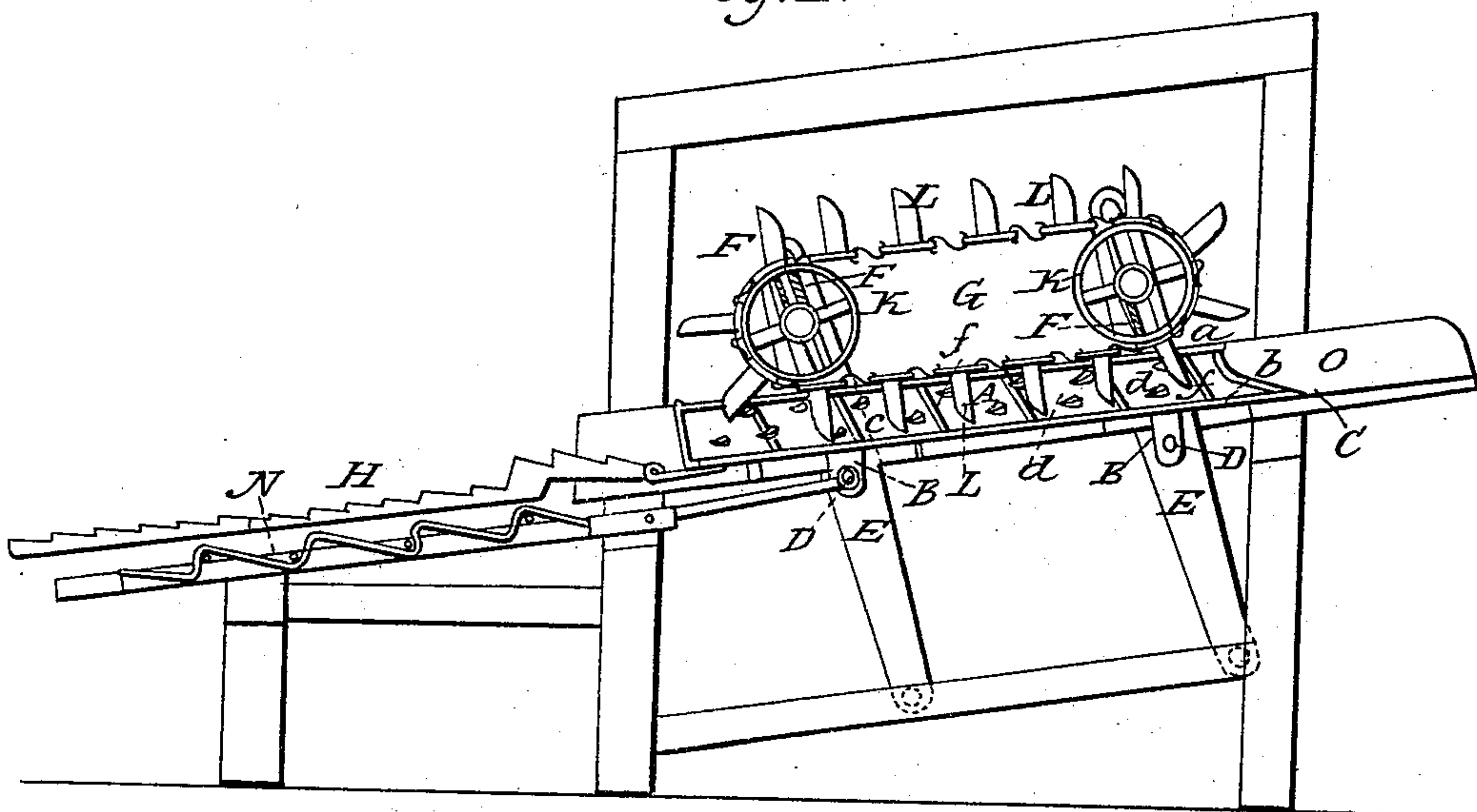


## Thrashing Machine.


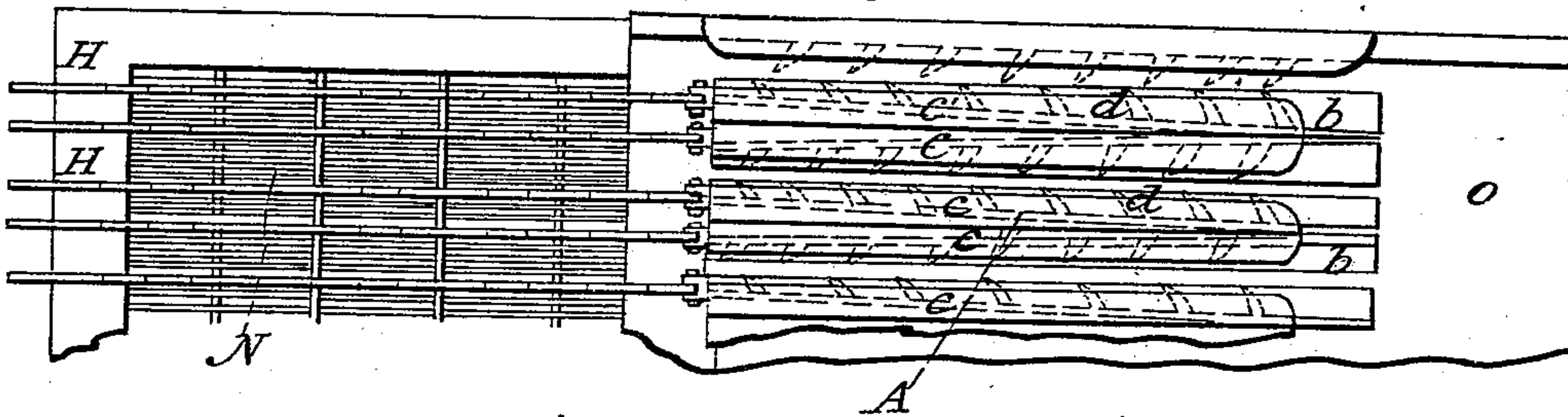
No. 71,093.

Patented Nov. 19, 1867.

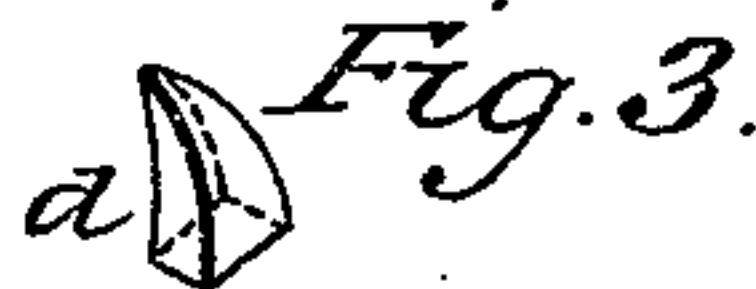
*Fig. 1.*



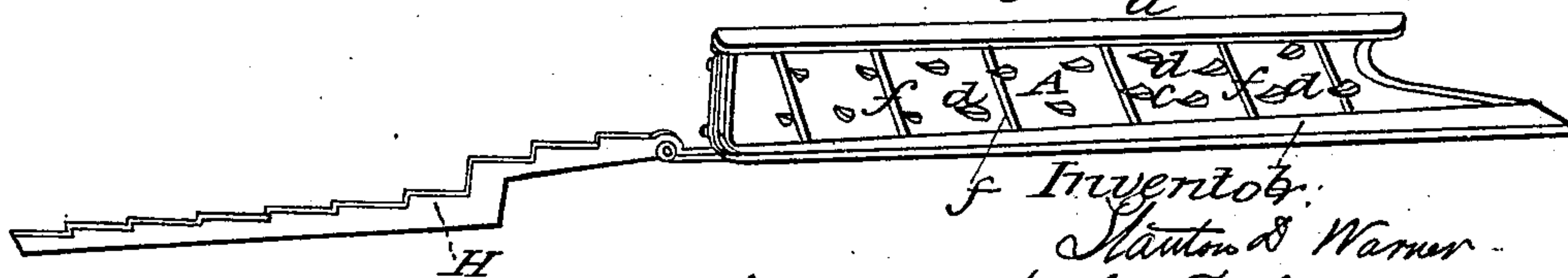
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses:  
Juz R. Bayden  
J. Schatt

*f Invenzob.  
Stanton & Warner  
by J.B. Turck  
for Attorney.*

# United States Patent Office.

STANTON D. WARNER, OF RICHMOND, ILLINOIS, ASSIGNOR TO HIMSELF,  
JONATHAN S. ROBERSON, JOHN BLACK, AND E. B. BREWSTER.

*Letters Patent No. 71,093, dated November 19, 1867.*

## IMPROVEMENT IN THRESHING MACHINES.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, STANTON D. WARNER, of Richmond, in the county of McHenry, State of Illinois, have invented a new and useful "Threshing Machine;" and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents a section of the endless cylinder and sieve, and the side view of the other parts of the machine.

Figure 2 is the top view of the plates, bars, and sieve.

Figure 3 is a tooth of the plates; and

Figure 4, a perspective view of a vibrating plate.

Similar letters of reference mark similar parts of the machine.

The nature of my invention consists in a combination of vibrating plates, provided with teeth on their inner surfaces, and an endless apron-cylinder, provided with flat prongs entering the spaces between the toothed sides of said vibrating plates, constituting my threshing machine.

It consists also in notched extension-bars, pinned to the rear ends of the vibrating plates, and operating with the same, for the purpose of conveying straw to any desirable distance. Also, in a peculiar arrangement of the sieve or sieves, to be placed under the said extension-bars for the purpose of receiving and cleaning the grain as it comes out of the concave, as will be hereinafter explained.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A A are the vibrating threshing-plates, arranged in sets of two. Each plate consists of a cap, *a*, and base, *b*, to which the threshing-plate *c* proper is secured diagonally, and is provided on its inner side with teeth, *d d*, of a pyramidal shape, with a square base, said teeth being longer at the forward or feeding end of the plate *c*, and shorter at the rear end, and slightly bent backward. These toothed sides of the plates are provided also with cross-bars *f f*, for the purpose of making their surface uneven and more adapted for threshing. The plates A A, when placed in the machine in sets, have their caps and bases close together in each set, their toothed sides forming spaces wider at the feeding end of the machine, and narrower at its rear end, which spaces may be adjusted by means of screws, wedges, or other suitable device, so as to answer different kinds of grain and grass-seed. The base *b* of each of the plates A A is provided underneath with a ring, B, one-half of the plates in all sets having rings at their front and the other half at their rear end. The rings pass through the corresponding longitudinal slots made in the bottom C of the trough O of the machine, and receive bars D D passed through them, which bars, by means of slotted pitmen E E, pinned at one end to the frame of the machine, and at the other end connected with the crank-pins F F, set on the shafts of the drum-cylinders K K of the endless-apron cylinder G, or by some other suitable means, can receive a reciprocating or vibrating motion, transferring the same to the plates A A. Notched bars or rods, H H, are pinned to the rear end of the plates A A, and move with them, pushing the straw, as it comes out of the threshing-plates, to the rear to any desirable distance, for which purpose they may be made in sections, one pinned to the other, thus forming flexible extensions so the plates A A. An endless apron, G, passing over two drum-cylinders, K K, is provided with flat triangular prongs, L L, and so distributed on its surface as to enter the spaces between the toothed sides of the plates A A, and, by moving through those spaces, to increase the threshing capacity of the machine. A pulley may be secured to one of the drum-cylinders, to which horse or steam-power may be applied to work the machine. A wire sieve, N, is placed under the extension-bars H H, and its wire, running longitudinally, is arranged in jogs, presenting interstices for the blast from a fan, allowing grain to pass through freely, and keeping off the straw. It is connected with the rear bar D, and hence has a reciprocating motion, besides which a vertical shaking motion can easily be communicated to it. It is to be added that the plates A A can easily be made in a curved shape, so as to be used with an ordinary threshing-cylinder, instead of the endless apron; but I would prefer to have them constructed as above described.

The advantages of my machine consist in this, that it has a longer surface of contact in the threshing



device through which the grain passes, hence it does not require such a velocity, and therefore not so much power, as an ordinary threshing machine. The grain is easily separated from the straw, and this is easily conveyed to any distance by flexible extension-rods. The arrangement of the machine is simple, cannot get easily out of order, and the machine costs less.

Having thus described my machine, what I claim as my invention, and desire to secure by Letters Patent, is—

1. The adjustable plates A A, of straight or curved shape, constructed as described, provided on their inner sides with graduated teeth of the described shape, and operated in a reciprocating or vibrating manner by means as described, or other equivalent means, substantially as herein set forth.

2. The endless-apron cylinder G, provided with flat triangular prongs L L, for the purpose described, and operating in combination with the adjustable vibrating plates A A, as described and specified.

3. The notched flexible bars or rods H H, attached to the rear end of and combined with the vibrating plates A A, arranged and operating substantially as herein set forth.

4. The wire jog-sieve N, or sieves, constructed and operating as described, in combination with the vibrating plates A A.

STANTON D. WARNER.

Witnesses:

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